

AMENDMENTS TO THE CLAIMS

Claims 1-55 (cancelled)

Claim 56 (new): A process for the preparation of an organosilicon condensate which comprises reacting together:

(A) at least one silicon containing compound having at least one silanol group; and

(B) at least one silicon containing compound having at least one -OR group

wherein R represents an alkyl group having from 1 to 8 carbon atoms, or an alkoxyalkyl group having from 2 to 8 carbon atoms in the presence of

(C) a calcium or magnesium catalyst selected to allow the reaction to proceed and

(D) at least one protic solvent; and

wherein the at least one silicon compound having at least one silanol group and the at least one silicon containing compound having at least one -OR group are in a molar ratio ranging from 1:2 to 2:1.

Claim 57 (new): A process according to claim 56 wherein the at least one silicon containing compound having at least one silanol group and the at least one silicon containing compound having at least one -OR group are in a 1:1 molar ratio.

Claim 58 (new): A process according to claim 56 wherein the organosilicon condensate is a siloxane.

Claim 59 (new): A process according to claim 58 wherein the siloxane is a polysiloxane.

Claim 60 (new): A process according to claim 56 wherein the at least one silicon containing compound having at least one silanol group is a silanol.

Claim 61 (new): A process according to claim 60 wherein the silanol has between one and three unsubstituted or substituted hydrocarbon groups having from 1 to 18 carbon atoms.

Claim 62 (new): A process according to claim 60 wherein the silanol has one OH group.

Claim 63 (new): A process according to claim 60 wherein the silanol has two OH groups.

Claim 64 (new): A process according to claim 60 wherein the silanol has three OH groups.

Claim 65 (new): A process according to claim 60 wherein the silanol has four OH groups.

Claim 66 (new): A process according to claim 60 wherein the silanol is diphenyl silanediol.

Claim 67 (new): A process according to claim 60 wherein the silanol bears a crosslinkable group.

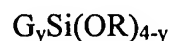
Claim 68 (new): A process according to claim 67 wherein the crosslinkable group is a double bond.

Claim 69 (new): A process according to claim 68 wherein the double bond is a carbon-carbon double bond.

Claim 70 (new): A process according to claim 69 wherein the double bond is selected from an acrylate double bond, a methacrylate double bond and a styrene double bond.

Claim 71 (new): A process according to claim 67 wherein the crosslinkable group is an epoxide.

Claim 72 (new): A process according to claim 56 wherein the at least one silicon containing compound having at least one -OR group is a compound with the general formula



wherein y has a value of 0, 1, 2 or 3,

G represents a unsubstituted or substituted hydrocarbon group having from 1 to 18 carbon atoms; and

R represents an alkyl group having from 1 to 8 carbon atoms or an alkoxyalkyl group having from 2 to 8 carbon atoms.

Claim 73 (new): A process according to claim 72 wherein the at least one silicon containing compound having at least one -OR group is an alkoxy silane.

Claim 74 (new): A process according to claim 73 wherein the alkoxy silane has one alkoxy group.

Claim 75 (new): A process according to claim 73 wherein the alkoxy silane has two alkoxy groups.

Claim 76 (new): A process according to claim 73 wherein the alkoxy silane has three alkoxy groups.

Claim 77 (new): A process according to claim 73 wherein the alkoxy silane has four alkoxy groups.

Claim 78 (new): A process according to claim 72 wherein (OR) is selected from the group consisting of methoxy, ethoxy, n-propoxy, i-propoxy, n-butoxy, i-butoxy, t-butoxy.

Claim 79 (new): A process according to claim 73 wherein the alkoxy silane bears a crosslinkable group.

Claim 80 (new): A process according to claim 79 wherein the alkoxy silane bears a crosslinkable group on G.

Claim 81 (new): A process according to claim 79 wherein the crosslinkable group is a double bond.

Claim 82 (new): A process according to claim 81 wherein the double bond is a carbon-carbon double bond.

Claim 83 (new): A process according to claim 81 wherein the crosslinkable group is a double bond selected from an acrylate double bond, a methacrylate double bond and a styrene double bond.

Claim 84 (new): A process according to claim 79 wherein the crosslinkable group is an epoxide.

Claim 85 (new): A process according to claim 73 wherein the alkoxy silane is a compound selected from the group consisting of 3-methacryloxypropyltrimethoxysilane, 3,3,3-trifluoropropyltrimethoxysilane, 1H, 1H, 2H, 2H-perfluorooctyltrimethoxysilane, octyltrimethoxysilane, 3-styrylpropyltrimethoxysilane, and 3-glycidoxypropyltrimethoxysilane, or a mixture thereof.

Claim 86 (new): A process according to claim 56 wherein the calcium or magnesium catalyst is not calcium carbonate, calcium phosphate, or magnesium carbonate.

Claim 87 (new): A process according to claim 86 wherein the calcium or magnesium catalyst is calcium hydroxide, calcium oxide, magnesium hydroxide or magnesium oxide.

Claim 88 (new): A process according to claim 87 wherein the calcium or magnesium catalyst is calcium hydroxide.

Claim 89 (new): A process according to claim 87 wherein the calcium or magnesium catalyst is calcium oxide.

Claim 90 (new): A process according to claim 87 wherein the calcium or magnesium catalyst is magnesium hydroxide.

Claim 91 (new): A process according to claim 87 wherein the calcium or magnesium catalyst is magnesium oxide.

Claim 92 (new): A process according to claim 56 wherein the protic solvent is an alcohol.

Claim 93 (new): A process according to claim 92 wherein the protic solvent is selected from the group consisting of methanol, ethanol, 1-propanol, 2-propanol, 1-butanol and 2-butanol.

Claim 94 (new): A process according to claim 56 wherein the protic solvent is water.

Claim 95 (new): A process according to claim 56 wherein the calcium or magnesium catalyst is separated from the organosilicon condensate.

Claim 96 (new): A process according to claim 56 wherein the catalyst is employed in an amount of from 0.0005 to 5% by mole based on the total silicon containing compounds.

Claim 97 (new): A process as claimed in claim 96 wherein the catalyst is employed in an amount of from 0.01 to 0.5% by mole based on the total silicon containing compounds.

Claim 98 (new): A process according to claim 56 wherein the protic solvent is employed in an amount of from 0.02% to 200% by mole based on the total silicon containing compounds.

Claim 99 (new): A process according to claim 98 wherein the protic solvent is employed in an amount of from 0.2% to 100% by mole based on the total silicon containing compounds.

Claim 100 (new): A process according to claim 99 wherein the solvent is employed in an amount of 0.4 to 50% by mole based on the total silicon containing compounds.

Claim 101 (new): A process according to claim 100 wherein the solvent is water employed in an amount of less than 8% by mole based on the total silicon containing compounds.

Claim 102 (new): A process according to claim 101 wherein the solvent is water employed in an amount of less than 4% by mole based on the total silicon containing compounds.

Claim 103 (new): A process according to claim 56 carried out at a temperature in the range from 40°C to 150°C.

Claim 104 (new): A process according to claim 103 carried out at a temperature in the range from 50°C to 100°C.

Claim 105 (new): A process according to claim 104 carried out at about 80°C.

Claim 106 (new): A polysiloxane prepared by the method of claim 56 having an absorption of less than 15cm^{-1} at about 2820nm.

Claim 107 (new): A polysiloxane according to claim 106 having an absorption of less than 7cm^{-1} at about 2820nm.